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Oracle Fusion Cloud Product Lifecycle Management

Digital transformation, globalization, and unpredictable market shifts are reshaping how organizations innovate, launch products, and serve customers. Today's business leaders face unrelenting pressure to deliver smarter products faster while optimizing costs, minimizing risks, and navigating supply chain volatility. Yet, too often, outdated tools and siloed information limit visibility and collaboration. Engineering teams, supply chain leaders, and operations managers struggle with manual workarounds, fragmented data, and disconnected technologies, which ultimately hinders innovation and makes it harder to respond to change.

To compete and thrive, enterprises need a new approach: a unified, AI-powered platform that ties together product design, supply chain execution, quality assurance, and procurement, enabling everyone to make smarter, faster decisions at scale.

Built for supply chains in the age of AI

Oracle empowers organizations to meet these product lifecycle management challenges with intelligent automation and real-time visibility across material, production, and maintenance workflows. Through built-in AI capabilities — including the Manufacturer Onboarding Advisor, the Product Regulatory and Compliance Advisor, and product description generation — Oracle helps teams optimize product innovation, reduce downtime, improve compliance, and deliver a more connected, predictive, and resilient operations ecosystem.
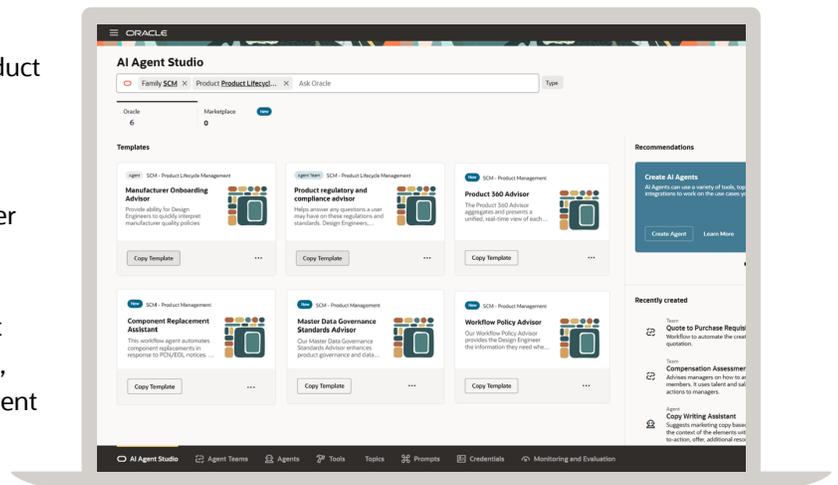

Figure 1. Pre-built AI Agents for Product Lifecycle Management available in the Oracle AI Agent Studio

Key challenges facing modern enterprises

Siloed data, disconnected processes

Most organizations are still managing product development and supply chain operations using tools designed for a previous era. Legacy product lifecycle management (PLM) systems often focus primarily on engineering or CAD data, while supply chain management (SCM) tools may lack insight into new product design or upcoming changes. This fragmentation results in inconsistent product records, duplicated effort, missed opportunities, and increased risk.

Cross-functional teams, from design to procurement to logistics, lack a single source of truth, making it harder to collaborate, innovate, and facilitate compliance from the outset.

Slow, manual workflows hinder speed and innovation

With manual handoffs and disconnected workflows, it's almost impossible to respond quickly to changing market conditions, customer feedback, or supply chain disruptions. Teams spend excessive amounts of time completing administrative tasks or troubleshooting data issues, rather than focusing on value-adding innovation or growth initiatives. Adapting processes to meet new requirements or regulations is often slow and cumbersome, requiring expensive IT intervention and causing costly launch delays.
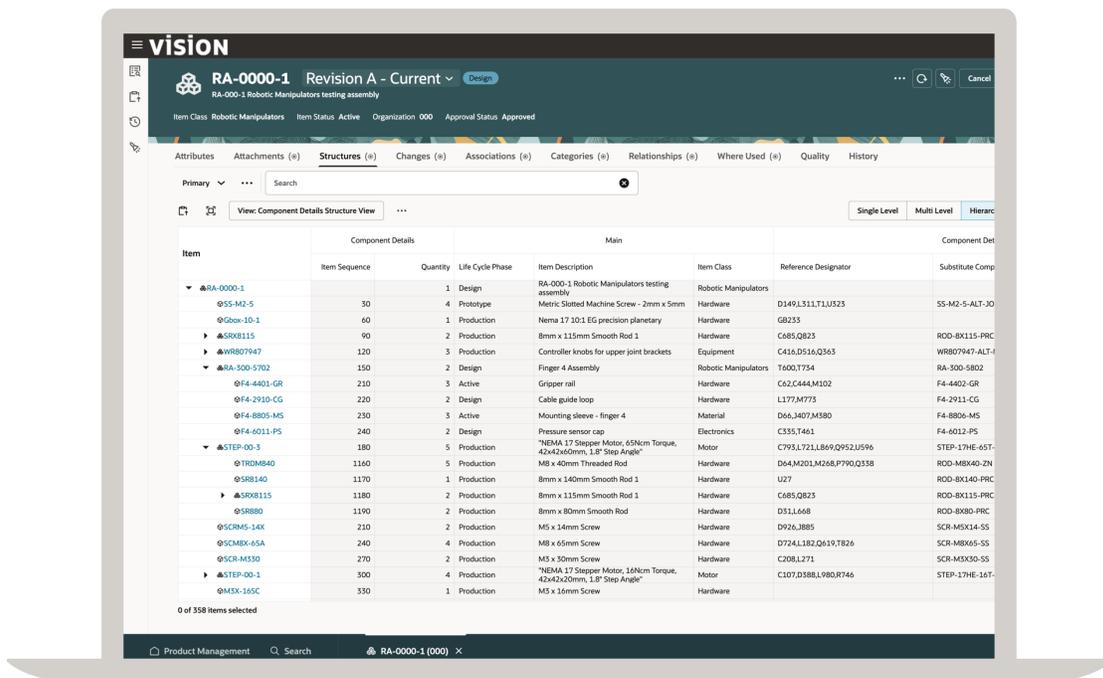
Limited insight for decision-making

Organizations need to anticipate—not just react to—market shifts and supply chain risks. But with data trapped in silos and systems that lack advanced analytics, leaders often make decisions in the dark. Without connected intelligence, it's harder to assess product viability, forecast demand, or mitigate quality and regulatory issues before they impact customers.

Oracle's solution: AI-powered, unified PLM

Oracle Fusion Cloud Product Lifecycle Management and Oracle Fusion Cloud Supply Chain & Manufacturing (SCM) deliver a next-generation, cloud-based foundation for modern product innovation and end-to-end supply chain orchestration.
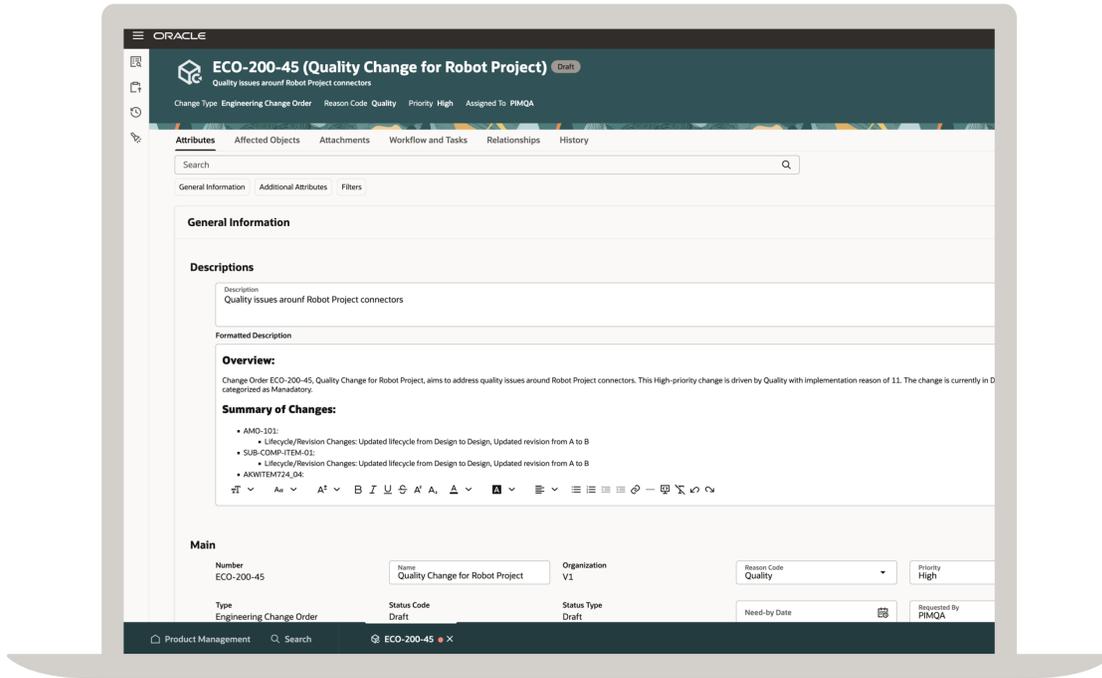
Figure 2. BOM grid with personalized views

Enterprise-wide integration and data connectivity

Oracle's unified platform connects design, engineering, procurement, manufacturing, quality assurance, and partners within a single, trusted product record. Native integration with Oracle Cloud ERP, SCM, and CX enables continuity across the entire value chain, providing real-time visibility and collaboration. Unified product and supply chain data breaks down traditional silos and establishes the digital thread needed for agentic workflows and advanced analytics.

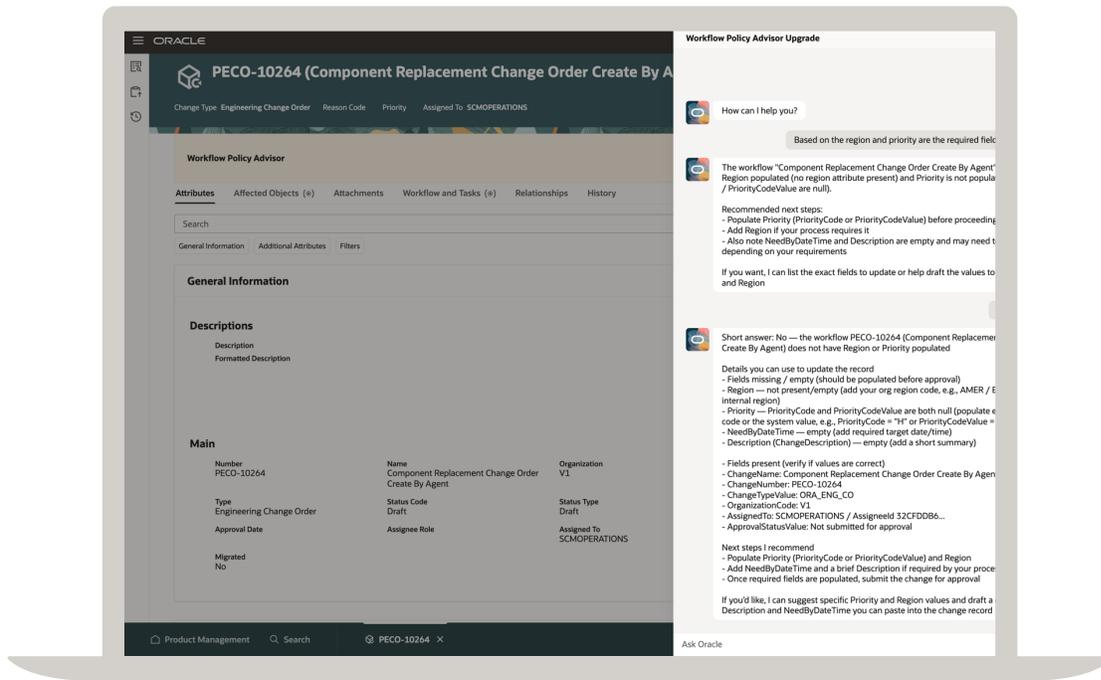Figure 3. Capture, analyze, and manage product quality issues from multiple sources

Embedded AI for automation and insight

Oracle brings "AI everywhere" to product and supply chain innovation. Embedded AI agents automate repetitive tasks, proactively monitor compliance, assist with product data management, and guide users through complex workflows. Predictive analytics and generative AI tap into real-time data streams, customer feedback, market trends, and supplier performance to deliver actionable insights, model scenarios, and accelerate decision-making. AI agents can also highlight quality or supply risks early, recommend design or sourcing changes, and facilitate rapid, fact-based problem-solving.

Agility through low-code/no-code configuration

With Oracle's always-current SaaS platform, organizations can quickly configure processes using visual low-code/no-code tools. Companies can leverage these tools to automate common workflows, enable digital assistance, and deploy AI-powered innovations without resorting to costly, brittle customizations or time-consuming change management. Meanwhile, Oracle Redwood UX helps ensure a consistent, modern, and accessible interface across roles and devices.

Figure 4. AI Agent Workflows and Embedded AI for content generation

Connecting business challenges to Oracle solutions

Challenge: Consistency across operations

Solution: Oracle's integrated PLM-SCM platform replaces fragmented systems with a unified product record that enables real-time collaboration. Every stakeholder, from R&D to logistics, works from the same source of truth to facilitate better decisions and consistent compliance throughout the lifecycle.

Challenge: Speed to market

Solution: Embedded AI agents can handle administrative tasks, automate compliance reporting, and provide intelligent recommendations to free up teams to innovate and focus on customer needs. Oracle's predictive analytics identify market opportunities and supply risks early, helping to accelerate launches and minimize costly delays.

Challenge: Quality and compliance

Solution: Oracle leverages a connected digital thread and closed-loop quality management to identify and mitigate risks proactively. Compliance and sustainability goals are tracked with AI-powered monitoring and reporting, supporting regulatory alignment even in the earliest design phases.

Challenge: Cost control and risk mitigation

Solution: With unified PLM and SCM data, organizations can optimize sourcing, monitor supplier performance, and assess design trade-offs in real time. This agility helps teams respond quickly to disruptions, shrink costs, and build supply chain resilience.
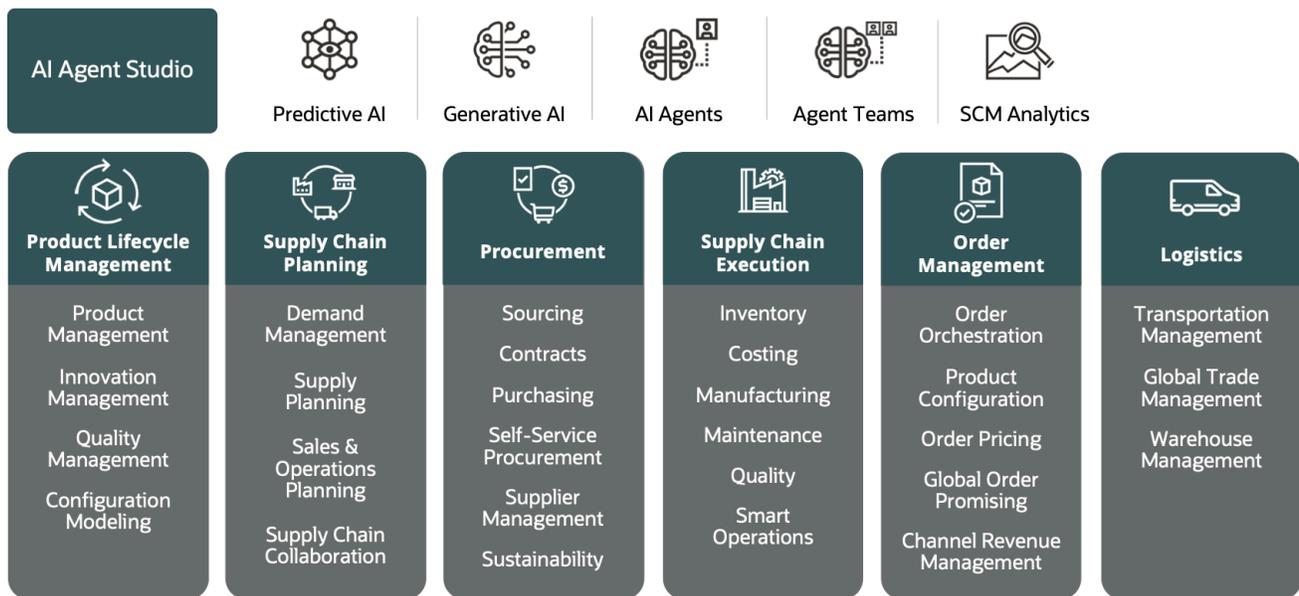
Key benefits for enterprises

- **Accelerated innovation:** Teams are empowered to move breakthrough ideas rapidly from concept to commercialization via AI-driven insights, automation, and connected collaboration.

- **Increased efficiency:** AI agents and cloud automation can reduce manual work and errors, allowing employees to shift focus from administrative overload to strategic initiatives and continuous improvement.
- **Improved product and supply chain quality:** Predictive tools and integrated quality processes can prevent defects and promote high standards throughout the lifecycle.
- **Reduced costs and risk:** Early, informed decisions can minimize costs, mitigate potential disruptions, and build agility into supply and product development processes.
- **Faster go-to-market periods:** Seamless integration and agile workflows support faster, higher-value product launches and ongoing profitability.
- **Enhanced sustainability and compliance:** AI-powered monitoring can support efforts to meet regulatory requirements from design all the way to post-launch, in line with sustainability and transparency goals.

Deliver bottom-line results with a smart, responsive supply chain

Implementing world-class product lifecycle management doesn't have to be expensive or disruptive. Oracle Fusion Cloud Supply Chain and Manufacturing (SCM) is the industry's most complete suite of supply chain applications, and we continuously deliver new capabilities across the entire footprint. You get immediate access to new feature enhancements and bug fixes upon release, with the flexibility to "opt-in" to significant changes. You can operationalize AI in many ways, but you can only do it right with Oracle SCM.

Figure 5. Oracle Fusion Cloud Supply Chain and Manufacturing (SCM) Suite.

AI Agent Studio	Predictive AI	Generative AI	AI Agents	Agent Teams	SCM Analytics
Product Lifecycle Management	**Supply Chain Planning**	**Procurement**	**Supply Chain Execution**	**Order Management**	**Logistics**
Product Management	Demand Management	Sourcing	Inventory	Order Orchestration	Transportation Management
Innovation Management	Supply Planning	Contracts	Costing	Product Configuration	Global Trade Management
Quality Management	Sales & Operations Planning	Purchasing	Manufacturing	Order Pricing	Warehouse Management
Configuration Modeling	Supply Chain Collaboration	Self-Service Procurement	Maintenance	Global Order Promising	
		Supplier Management	Quality	Channel Revenue Management	
		Sustainability	Smart Operations		

Built in. Not Bolted on.

To learn more about the Oracle Fusion Cloud SCM suite, visit oracle.com/scm.

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